

This is the scope for one of six pieces of NICE guidance to help prevent obesity.

1. 'Preventing obesity: a whole-system approach' is the subject of this scope. It will be developed using the public health programme process. (Publication expected March 2012.)
2. 'Helping overweight and obese children achieve a healthy weight'. This will be developed using the public health intervention process. (Publication date and scope to be confirmed.)
3. 'Community interventions for overweight and obese children'. This will be developed using the public health intervention process. (Publication date and scope to be confirmed.)
4. 'Fruit and vegetable provision for disadvantaged communities'. This will be developed using the public health intervention process. (Publication date and scope to be confirmed.)
5. 'Using the media to promote healthy eating'. This will be developed using the public health intervention process. (Publication date and scope to be confirmed.)
6. 'Transport policies that prioritise walking and cycling'. This will be developed using the public health intervention process. (Publication date and scope to be confirmed.)

# PUBLIC HEALTH GUIDANCE

## SCOPE

### 1 Guidance title

Preventing obesity using a 'whole-system' approach at local and community level.

#### 1.1 *Short title*

Preventing obesity: a whole-system approach.

### 2 Background

- a) The National Institute for Health and Clinical Excellence (NICE) has been asked by the Department of Health (DH) to develop guidance on a public health programme aimed at maintaining a healthy weight and preventing obesity.
- b) A 'system' has been defined as 'a structured set of objects and/or attributes together with the relationships between them' (Foresight 2007). It covers structure, process and change. For the purpose of this guidance, a 'whole-system' sustainable approach to obesity involves a broad set of integrated local and community services and delivery processes and a range of organisations. It shifts attention away from individual risk factors or isolated interventions and considers many influences simultaneously, in line with the obesity systems map developed by Foresight (2007). Systems operate at different levels. This guidance will focus on local delivery, including action by local government, the NHS, and employers and other organizations in the commercial, voluntary and community sectors. It will also focus on the impact of national policy on the effectiveness of local action.

- c) NICE public health guidance supports the preventive aspects of relevant national service frameworks (NSFs), where they exist. If it is published after an NSF has been issued, the guidance effectively updates it. Specifically, in this case, the guidance will support NSFs on coronary heart disease and diabetes (DH 2000; 2001).
- d) This guidance will support a number of related policy documents including:
- ‘Be active, be healthy. A plan to get the nation moving’ (DH 2009a)
  - ‘Commissioning framework for health and well-being’ (DH 2007)
  - ‘Delivering choosing health: making healthier choices easier’ (DH 2005)
  - ‘Every child matters: change for children’ (Department for Education and Skills 2004)
  - ‘Fair society, healthy lives. Strategic review of health inequalities in England post 2010’ (The Marmot Review 2010)
  - ‘Food 2030’ (Department for Environment, Food and Rural Affairs 2010)
  - ‘Healthy child programme: from 5–19 years’ (DH 2009b)
  - ‘Health inequalities: progress and next steps’ (DH 2008a)
  - ‘Healthy lives brighter futures – the strategy for children and young people’s health’ (DH 2009c)
  - ‘Healthy weight, healthy lives: a cross-government strategy for England’ (DH 2008b)
  - ‘Securing good health for the whole population’ (Wanless 2004)
  - ‘Tackling health inequalities: 2007 status report on the programme for action’ (DH 2008c)
  - ‘Tackling obesities: future choices – project report’ (Foresight 2007).

- e) This guidance will provide recommendations for good practice, based on the best available evidence of effectiveness, including cost effectiveness. It is aimed at local decision makers. This includes policy makers, commissioners, managers and practitioners working within the NHS, local authorities and the wider public, private, voluntary and community sectors. It will also be of interest to members of the public.
- f) The guidance will support other NICE guidance on the prevention and management of obesity. It will also support NICE guidance on: physical activity and the environment, maternal and child nutrition, the prevention of cardiovascular disease, spatial planning and the prevention of type 2 diabetes. In addition, it will also draw on recommendations made in NICE's guidance on community engagement (2008). For further details, see section 6.

This guidance will be developed using the NICE public health programme process.

### **3 The need for guidance**

- a) In England, almost a quarter of adults and almost a sixth of children under the age of 11 are obese (The Information Centre 2009). (Adults with a body mass index [BMI] more than or equal to 30 kg/m<sup>2</sup> are classified as obese, as are children with a BMI over the 95th percentile – based on the 1990 UK reference population.) It is predicted that by 2050, 60% of adult men, 50% of adult women and 25% of children may be obese (Foresight 2007). Although differences in measurement methods make comparison with other countries difficult, the rate of obesity in England is at least as high, if not higher, than in other EU countries. While there is some suggestion that it may be starting to level off among children in England (McPherson et al. 2009), prevalence remains very high among this group.

- b) Obesity is related to social disadvantage among adults (Foresight 2007) and children (The Information Centre 2009). It is also linked to ethnicity: it is most prevalent among African-Caribbean and Irish men and least prevalent among Chinese women (The Information Centre 2006). Obesity rates in England also vary across local authorities (The Information Centre 2009).
- c) Around 58% of type 2 diabetes, 21% of heart disease and between 8% and 42% of certain cancers (endometrial, breast, and colon) are attributable to excess body fat. Obesity reduces life expectancy by an average 9 years and is responsible for 9000 premature deaths a year in England. In addition, people who are obese can experience stigmatisation and bullying, which can lead to depression and low self-esteem (Foresight 2007).
- d) It costs the NHS an estimated £4.2 billion annually to treat people with health problems related to being overweight or obese. This figure is forecast to more than double by 2050. The current cost to the wider economy is £16 billion – this is predicted to rise to £50 billion a year by 2050 if left unchecked (Foresight 2007).
- e) The determinants of obesity are complex. Factors include: genetic disposition, individual lifestyle, psychological issues, the physical and cultural environment, food production and consumption, education and the influence of the media (Foresight 2007).
- f) Existing NICE guidance indicate the type of discrete intervention (in settings such as primary care, schools or workplaces) that will be effective in tackling obesity, diet and physical activity at the national and local level. However, none of this guidance has considered the synergy between discrete policies or ‘packages’ of interventions; complex issues around local delivery and implementation; or the impact of national policy on local action.
- g) Rates of obesity are rising worldwide and to date, no country has managed to reverse this trend. The Foresight report (2007) argued

that policies and small-scale interventions aimed at individuals are inadequate and that a whole-system approach is critical. However, it remains unclear how a broad range of partners can best develop and implement community-wide approaches that consistently and cost-effectively tackle the determinants of obesity. Such programmes are notoriously difficult to evaluate and do not lend themselves to traditional research designs. Whole systems and how they work are difficult to describe even though there is widespread agreement that a systems approach offers promise and opportunity. This guidance will determine the best way to use the system to reverse the obesogenic tendencies associated with contemporary ways of living. Foresight (2007) noted that the evidence base will need to develop in tandem with novel interventions which are informed by the available evidence and strengthened by expert advice. Innovative approaches to modelling will also be needed.

## **4 The guidance**

Public health guidance will be developed according to NICE processes and methods. For details see section 5.

This document defines exactly what this guidance will (and will not) examine, and what the guidance developers will consider. The scope is based on a referral from the DH (see appendix A).

### **4.1 *Who is the focus?***

#### **4.1.1 Groups that will be covered**

Everyone except those undergoing clinical treatment for obesity.

#### **4.1.2 Groups that will not be covered**

Children and adults who are undergoing clinical treatment for obesity. This is covered by 'Obesity: the prevention, identification, assessment and

management of overweight and obesity in adults and children'. NICE clinical guideline 43 (2006).

## **4.2 Activities**

### **4.2.1 Activities/measures that will be covered**

The guidance will consider how local policy and decision makers can prevent and reduce the prevalence of obesity among different communities by producing and delivering effective 'packages' of policies and interventions.

Guidance is already available on how to prevent or manage obesity and it is clear what the main national policy levers are. However, translating this into effective local action has proved challenging.

While there is widespread support for a 'systems approach' to obesity, how this can be brought about remains unclear. So the focus will be on local implementation and delivery systems. This includes those used by primary care trusts (PCTs), local authorities, sports, physical activity and recreational services, food industry and retailers, the voluntary sector and the communities they serve.

The guidance will also consider how national policy, including fiscal or regulatory change, can support these 'packages' of interventions.

The following elements – and how they interact – may be considered:

- locally implemented strategies, plans and initiatives, including local area agreements and initiatives run by community and NHS services
- partnership working (between, for example, primary care, local authorities, local community organisations and local businesses)
- education systems
- the natural and built environment
- food systems
- transport systems
- wider influences, such as the local and national media

- training and development for those involved in local efforts to prevent obesity.

The Programme Development Group (PDG) will take reasonable steps to identify ineffective measures and approaches.

#### **4.2.2 Activities/measures that will not be covered**

- Clinical management of children and adults who are overweight or obese. This is covered by existing NICE guidance on obesity (see section 6).
- Prevention or management of medical conditions associated with being overweight or obese (such as type 2 diabetes or cardiovascular disease).
- Discrete interventions in a particular location, such as schools or workplaces. This is covered by existing NICE guidance (see section 6).
- Complementary therapy methods to reduce or manage obesity.
- Assessment of the definitions of 'overweight' and 'obese' in relation to children and adults.

#### **4.3 Key questions**

Below are the overarching questions that will be addressed:

**Question 1:** What are the essential elements of a robust, community-based, whole-system approach to preventing obesity (for example, societal, environmental and organisational)? How do they interact with each other?

**Question 2:** How does local and national policy impact on the effectiveness, cost effectiveness, delivery and sustainability of local action to prevent obesity? Are there any unintentional consequences? (For example, policies on health and transport may conflict, if people are being encouraged to be physically active but are living in environments dominated by busy roads.)

**Question 3:** What 'packages' of actions and strategies may be effective and cost effective in bringing about population-wide improvements in weight management within a given community? How does effectiveness vary



between different communities or population groups, including disadvantaged groups?

**Question 4:** What barriers and facilitators may influence the implementation, delivery and effectiveness of these ‘packages’ of actions and strategies among a given community? (This should include any barriers and facilitators for specific groups).

**Question 5:** Who are the essential partners (formal and informal)? Are there any implications for local monitoring and evaluation?

**Question 6:** How can local political, social, economic and environmental factors be tackled simultaneously as part of a whole-system approach to preventing obesity? What factors need to be considered to ensure the programme is robust and sustainable (for example, is public opinion important, is the sequence, phasing and timing of actions and strategies important)?

A broad range of literature will be considered. The evidence reviews may include natural experiments (such as studies on changing transport policies), local evaluation reports, community plans or strategy reports and local or national government reports, alongside more traditional quantitative and qualitative evidence.

Where evidence on obesity is limited, reviews may cover other public health issues (such as smoking or alcohol prevention), depending on the resources available.

A broad range of outcome measures will be considered.

A framework which is consistent with the whole-system approach will be used to consider action at the social level (Kelly et al. 2009).

The economic analysis will use a public sector perspective or, if required, a societal perspective. If a cost–effectiveness analysis cannot answer the key questions, cost–consequence or cost-benefit analysis may be carried out.

#### **4.4 Status of this document**

This is the final scope, incorporating comments from a 4-week consultation which included a stakeholder meeting on 27 January 2010.

### **5 Further information**

The public health guidance development process and methods are described in 'The NICE public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public (second edition, 2009)' available at [www.nice.org.uk/phprocess](http://www.nice.org.uk/phprocess) and 'Methods for development of NICE public health guidance (second edition, 2009)' available at [www.nice.org.uk/phmethods](http://www.nice.org.uk/phmethods)

### **6 Related NICE guidance**

#### ***Published***

Promoting physical activity for children and young people. NICE public health guidance 17 (2009). Available from [www.nice.org.uk/PH17](http://www.nice.org.uk/PH17)

Antenatal care. NICE clinical guideline 62 (2008). Available from [www.nice.org.uk/CG62](http://www.nice.org.uk/CG62)

Promoting physical activity in the workplace. NICE public health guidance 13 (2008). Available from [www.nice.org.uk/PH13](http://www.nice.org.uk/PH13)

Maternal and child nutrition. NICE public health guidance 11 (2008). Available from [www.nice.org.uk/PH11](http://www.nice.org.uk/PH11)

Community engagement. NICE public health guidance 9 (2008). Available from [www.nice.org.uk/PH9](http://www.nice.org.uk/PH9)

Physical activity and the environment. NICE public health guidance 8 (2008). Available from [www.nice.org.uk/PH8](http://www.nice.org.uk/PH8)

Behaviour change. NICE public health guidance 6 (2007). Available from [www.nice.org.uk/PH6](http://www.nice.org.uk/PH6)

Four commonly used methods to increase physical activity. NICE public health guidance 2 (2006). Available from [www.nice.org.uk/PH2](http://www.nice.org.uk/PH2)

Obesity. NICE clinical guideline 43 (2006). Available from [www.nice.org.uk/CG43](http://www.nice.org.uk/CG43)

Fertility. NICE clinical guideline 11 (2004). Available from [www.nice.org.uk/CG11](http://www.nice.org.uk/CG11)

### ***Under development***

Alcohol-use disorders: preventing harmful drinking. NICE public health guidance (publication expected May 2010)

Cardiovascular disease. NICE public health guidance (publication expected June 2010)

Weight management in pregnancy and

after childbirth. NICE public health guidance (publication expected July 2010)

Prevention of type 2 diabetes: preventing pre-diabetes in adults. NICE public health guidance (publication expected June 2011)

Spatial planning for health. NICE public health guidance (publication expected December 2011)

Community interventions for overweight and obese children. NICE public health guidance (publication date to be confirmed)

Helping overweight and obese children achieve a healthy weight. NICE public health guidance (publication date to be confirmed)

Fruit and vegetable provision for disadvantaged communities. NICE public health guidance (publication date to be confirmed)

Preventing progression of pre-diabetes to type 2 diabetes. NICE public health guidance (publication date to be confirmed)

Transport policies that prioritise walking and cycling. NICE public health guidance (publication date to be confirmed)

Using the media to promote healthy eating. NICE public health guidance (publication date to be confirmed)

## **Appendix A Referral from the Department of Health**

The Department of Health asked NICE to:

‘Produce public health programme guidance on the prevention of obesity for PCTs, local authorities, primary care, sports recreational services, food retailers and the voluntary sector on effective community-based approaches to maintaining a healthy weight and prevention of obesity, based on a whole-systems perspective, and considering research of a natural experimental/policies, including international work’.

## Appendix B Potential considerations

This guidance is not concerned with demonstrating the effectiveness and cost effectiveness of discrete interventions. Rather, it will consider the delivery and implementation of packages of interventions. It aims to encourage new, broader ways of working across a range of settings. It is anticipated that the Programme Development Group (PDG) will consider the following issues:

- The range of local opportunities available to those involved in preventing obesity.
- Critical elements of a whole-systems approach to preventing obesity. For example, whether effectiveness and cost effectiveness varies according to:
  - the diversity of the population (for example, in terms of people's age, gender, socioeconomic status or ethnicity) and stage in the lifecourse
  - the status or characteristics of the person (or organisation) delivering packages of interventions – and the way they are delivered
  - the setting and whether packages of interventions are transferable to other settings
  - scale of implementation
  - local area characteristics.
- How partnership working impacts on effectiveness, cost effectiveness and sustainability. In particular, which institutions and individuals are key players in a whole-systems approach.
- Any trade-offs between equity and efficiency. In particular, the relative effectiveness of a population-based approach compared to targeted action among vulnerable groups.
- Any factors that prevent – or support – effective implementation. This may include considering social structures which will impact on a whole-systems approach.

- Synergies between discrete policies or interventions and ‘packages’ of interventions.
- The impact of national policies, including wider fiscal and regulatory action, on effectiveness and cost effectiveness (including any unintentional consequences).
- How primary care-based activities link to other activities being carried out as part of a whole-systems approach. (However, issues relating to the identification, treatment and referral of individuals will not be considered.)
- The relevance of international work including natural experiments, policy-level actions and strategies and community-wide, multiple risk factor programmes (such as those addressing a number of the risk factors for heart disease).
- Any adverse or unintended effects.

## Appendix C References

Department for Education and Skills (2004) Every child matters: change for children. London: The Stationery Office

Department for Environment, Food and Rural Affairs (2010) Food 2030. London: Department for Environment, Food and Rural Affairs

Department of Health (2000) National service framework for coronary heart disease. London: Department of Health

Department of Health (2001) Modern standards and service models – diabetes: national service framework standards. London: Department of Health

Department of Health (2005) Delivering choosing health: making healthier choices easier. London: Department of Health

Department of Health (2007) Commissioning framework for health and well-being. London: Department of Health

Department of Health (2008a) Health inequalities: progress and next steps. London: Department of Health

Department of Health (2008b) Healthy weight, healthy lives: a cross-government strategy for England. London: Department of Health

Department of Health (2008c) Tackling health inequalities: 2007 status report on the programme for action. London: Department of Health

Department of Health (2009a) Be active be healthy. A plan to get the nation moving. London: Department of Health

Department of Health (2009b) Healthy child programme: from 5–19 years. London: Department of Health

Department of Health (2009c) Healthy lives brighter futures – the strategy for children and young people's health. London: Department of Health



Foresight (2007) Tackling obesity: future choices – project report. London: Government Office for Science

Kelly MP, Stewart E, Morgan A et al. (2009) A conceptual framework for public health: NICE's emerging approach. *Public Health* 123: e14–e20.

Available from

[www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B73H6-4V5NT10-3-3&\\_cdi=11546&\\_user=10&\\_orig=browse&\\_coverDate=01%2F31%2F2009&\\_sk=998769998&\\_view=c&\\_wchp=dGLzVlz-zSkWz&\\_md5=390c0efa1befbc3c9df71f10fc6e4b2a&\\_ie=/sdarticle.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B73H6-4V5NT10-3-3&_cdi=11546&_user=10&_orig=browse&_coverDate=01%2F31%2F2009&_sk=998769998&_view=c&_wchp=dGLzVlz-zSkWz&_md5=390c0efa1befbc3c9df71f10fc6e4b2a&_ie=/sdarticle.pdf)

McPherson K, Brown M, Marsh T et al. (2009) Obesity: recent trends in children aged 2–11y and 12–19y. Analysis from the health survey for England 1993–2007. London: National Heart Forum

The Information Centre (2006) Health survey for England 2004. Leeds: The Information Centre for Health and Social Care

The Information Centre (2009) Statistics on obesity, physical activity and diet: England 2009. Leeds: The Information Centre for Health and Social Care

The Marmot Review (2010) Fair society, healthy lives. Strategic review of health inequalities in England post 2010. London: The Marmot Review

Wanless D (2004) Securing good health for the whole population. London: HM Treasury